WHAT IS CLAIMED IS:

1. A humidifier system, comprising:
   a) a reservoir for containing filtered fluid;
   b) a heating element positioned adjacent to the reservoir for heating the filtered fluid within the reservoir;
   c) a filter assembly in fluid communication with the reservoir, the filter assembly being capable of eliminating particles sized 1.0 micrometers and larger; and
   d) an electrically activated valve positioned to selectively permit fluid flow from the supply source to the filter assembly.

2. The filtering system of claim 1, where the electrically activated valve is a solenoid valve.

3. The filtering system of claim 1, further including a fluid level detection mechanism to detect the fluid level in the reservoir, wherein the fluid level detection mechanism is operatively connected to the electrically activated valve.

4. The filtering system of claim 3, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.

5. The filtering system of claim 4, wherein the first float device includes a magnet and a reed switch.

6. The filtering system of claim 4, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.

7. The filtering system of claim 4, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.

8. The filtering system of claim 7, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid level is at a predetermined second height.

9. The filtering system of claim 1, wherein the electrically activated valve is a normally closed valve.

10. The filtering system of claim 1, wherein the electrically activated valve and filter assembly are positioned in series such that the filter assembly is at approximately atmospheric pressure when the electrically-activated valve is closed.

11. The filtering system of claim 1, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.

12. The filtering system of claim 1, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

13. The filtering system of claim 1, wherein the filter assembly comprises a reverse osmosis filter.

14. A filtering and flow control system, comprising:

a) a reservoir configured to hold the fluid;

b) a filter assembly in fluid communication with the reservoir, the filter assembly being capable of eliminating particles sized 1.0 micrometers and larger;

c) a fluid level detection mechanism to detect the fluid level in the reservoir; the fluid level detection mechanism including:

i) a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly;

ii) a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly; and

d) a flow control valve positioned to selectively provide fluid flow from a supply source to the filter assembly, wherein the fluid level detection mechanism is operatively connected to the flow control valve.

15. The filtering system of claim 14, wherein the flow control valve is an electrically activated valve that is opened and closed in response to the fluid level in the reservoir.

16. The filtering system of claim 14, wherein the flow control valve is a solenoid valve.

17. The filtering system of claim 14, wherein the first float device includes a magnet and a reed switch.

18. The filtering system of claim 14, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.

19. The filtering system of claim 14, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid level is at a predetermined second height.

20. The filtering system of claim 14, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.

21. The filtering system of claim 14, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

22. The filtering system of claim 14, wherein the filter assembly comprises a reverse osmosis filter.

23. The filtering system of claim 22, wherein the filter assembly further comprises a chlorine filter positioned in series with the reverse osmosis filter and in fluid communication with an inlet of the reverse osmosis filter.

24. A filtering and flow control system, comprising:

a) a reservoir configured to hold a fluid;

b) a filter assembly in fluid communication with the reservoir, the filter assembly being capable of eliminating particles sized 1.0 micrometers and larger;

c) a fluid level detection mechanism to detect the fluid level in the reservoir, the fluid level detection mechanism including:

i) a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly, the first float device having a magnet and a reed switch; and

d) a flow control valve positioned to selectively provide fluid flow from a supply source to the filter assembly, wherein the fluid level detection mechanism is operatively connected to the flow control valve.

25. The filtering system of claim 24, wherein the flow control valve is an electrically activated valve that is opened and closed in response to the fluid level in the reservoir.

26. The filtering system of claim 25, wherein the flow control valve is a solenoid valve.

27. The filtering system of claim 24, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.

28. The filtering system of claim 24, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.

29. The filtering system of claim 28, wherein the second float device includes a second magnet and a second reed switch.

30. The filtering system of claim 28, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid level is at a predetermined second height.

31. The filtering system of claim 24, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.

32. The filtering system of claim 24, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

33. The filtering system of claim 24, wherein the filter assembly comprises a reverse osmosis filter.

34. The filtering system of claim 33, wherein the filter assembly further comprises a chlorine filter positioned in series with the reverse osmosis filter and in fluid communication with an inlet of the reverse osmosis filter.

35. A humidifier system, comprising:

a) a reservoir configured to contain a fluid;

b) a heat source configured to heat fluid within the reservoir; and

c) a filter assembly for filtering the fluid prior to its flowing into the reservoir, the filter assembly capable of eliminating particles sized 1.0 micrometers and greater;

d) an electrically-activated valve positioned to selectively permit fluid flow from the supply source to the filter assembly; and

e) a fluid level detection mechanism to detect the fluid level in the reservoir wherein the fluid level detection mechanism is operatively connected to the electrically activated valve.

36. The humidifier system of claim 35, where the electrically activated valve is a solenoid valve.

37. The humidifier system of claim 35, wherein the heat source is a heating element within the reservoir.

38. The humidifier system of claim 35, wherein the heat source is applied to the exterior of the reservoir to heat the fluid.

39. The humidifier system of claim 35, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.

40. The humidifier system of claim 39, wherein the first float device includes a magnet and a reed switch.

41. The humidifier system of claim 39, wherein the first float device is a high fluid level float that generates a signal to the electrically-activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.

42. The humidifier system of claim 39, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.

43. The humidifier system of claim 42, wherein the second float device is a low fluid level float that generates a signal to the electrically-activated valve to open fluid flow to the filter assembly when the fluid level is at a predetermined second height.

44. The humidifier system of claim 35, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.

45. The humidifier system of claim 35, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

46. The humidifier system of claim 35, wherein the filter assembly comprises a reverse osmosis filter.

47. The humidifier system of claim 46, wherein the filter assembly comprises a chlorine filter in fluid communication with an inlet of the reverse osmosis filter.